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# Acknowledgements

The Washington County Multi-Jurisdictional Multi-Hazard Mitigation Plan includes the communities of Bartlesville, Copan, Dewey, Ochelata, Ramona and Vera, and the public schools of Bartlesville, Copan, Dewey and Caney Valley. The Plan was developed with financial assistance from the Hazard Mitigation Grant Program through Oklahoma Emergency Management, the Federal Emergency Management Agency, and local funding from Washington County. The Washington County Multi-Jurisdictional Multi-Hazard Mitigation Plan was prepared under the direction of the Washington County Board of County Commissioners.

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Numerous other government and educational officials, agencies, organizations and individuals participated in the study. Acknowledgments of these important contributors appear throughout the Plan document.

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# Executive Summary



Oklahoma's location at the intersection of the hot arid zone to the west, the temperate zone to the northeast, and the hot humid zone to the southeast make it subject to a wide variety of potentially violent weather patterns and natural hazards.

Making people and businesses as safe as possible from a variety of natural and man-made hazards is the first step in making the area attractive for new residents and expanding businesses. The Washington County Multi-Jurisdictional Multi-Hazard Mitigation Plan is a comprehensive effort to identify potential hazards and develop a sound plan to mitigate their impacts, with the goal of saving the lives and property of the citizens of Washington County, the incorporated and unincorporated communities, and the public school systems of Washington County. This plan fulfills the requirements of the Pre-Disaster Mitigation (PDM) Grant Program and Hazard Mitigation Grant Program (HMGP) of the Federal Emergency Management Agency (FEMA) and Oklahoma Emergency Management (OEM).

In December 2005, the Multihazard Mitigation Council of the National Institute of Building Sciences completed a study to assess future savings from mitigation activities. Their findings reflected the fact that mitigation activities in general produced over \$4 in savings for every \$1 invested in mitigation actions, with the greatest savings in the areas of flood-related events (5:1) and wind-related events (3.9:1). In addition, the report concluded, *"Mitigation is most effective when carried out on a comprehensive, community-wide, and long-term basis. Single activities can help, but carrying out a slate of coordinated mitigation activities over time is the best way to ensure that communities will be physically, socially, and economically resilient to future hazard impacts."*

Approval of this plan will qualify all unincorporated areas of Washington County, the incorporated communities of Bartlesville, Copan, Dewey, Ochelata, Ramona and Vera, and the public schools of Bartlesville, Copan, Dewey and Caney Valley., to apply for Pre-Disaster Mitigation (PDM) as well as Hazard Mitigation Grant Program (HMGP) disaster mitigation funds following a federal disaster declaration, as provided under Robert T. Stafford Disaster Relief and Emergency Assistance Act, as amended



## Background

Washington County and the included communities and school districts are vulnerable to natural and man-made hazards. The Washington County Hazard Mitigation Advisory Committee identified the 15 hazards most likely to affect the County as a whole. These hazards included winter storms, high wind, tornadoes, lightning, hail, extreme heat, drought, earthquake, urban fire, floods, dam failures, expansive soils, wildfires, fixed-sited hazardous materials events, and transportation of hazardous materials.

## Purpose

The purpose of this plan is to:

- Assess the ongoing mitigation activities within each jurisdiction;
- Identify and assess the hazards that pose a threat to citizens and property;
- Evaluate additional mitigation measures that should be undertaken;
- Outline a strategy for implementation of mitigation projects.

The objective of this plan is to provide guidance for community activities for the next five years. It will ensure that Washington County implements activities that are most effective and appropriate for mitigating the 15 identified natural and manmade hazards.

## Washington County Hazard Mitigation Advisory Committee (HMAC)

Citizens and professionals active in disasters provided important input in the development of the plan and recommended goals and objectives, mitigation measures, and priorities for actions. The HMAC is comprised of citizen leaders of the County and the various communities appointed by the County Commissioners and representatives of the included public school districts appointed by their various boards of education.

## The Planning Process

Planning for the Washington County Multi-Jurisdictional Multi-Hazard Mitigation Plan followed a ten-step process, based on guidance and requirements of FEMA for the PDM grant program, HMGP, the Flood Mitigation Assistance (FMA) program, and the Community Rating System (CRS).

1. Organize to prepare the plan
2. Involve the public
3. Coordinate with other agencies and organizations
4. Assess the hazard
5. Assess the problem
6. Set goals
7. Review possible activities
8. Draft the action plan
9. Adopt the plan
10. Implement, evaluate, and revise

## Plan Summary

The Washington County Multi-Jurisdictional Multi-Hazard Mitigation Plan provides guidance to help citizens protect life and property from natural and manmade hazards. The plan identifies the hazards that are most likely to strike each jurisdiction, provides a profile and risk assessment of each hazard, identifies mitigation measures for each hazard, and presents an action plan for the implementation of the mitigation measures.

**Chapter 1** presents detailed information documenting the planning process including citizen and agency involvement, a table describing how and why each hazard was identified, and methodologies used in the plan for damage estimates and risk assessments.

**Chapter 2** provides a profile of Washington County. This chapter includes a community description including demographics, lifelines, and critical facilities. This Chapter also provides an overview and discussion of existing resources and hazard mitigation programs. Cities and towns are profiled in Chapter 4 and public school districts are presented in Chapter 5.

**Chapter 3** provides an assessment of 15 natural and man-made hazards. Each assessment includes a hazard profile, catalogs historical events, identifies the vulnerable populations, and presents a conclusion.

**Chapter 4** presents an overview of each incorporated community, its history, economy, demographics and vulnerability to hazards, and includes maps of site-specific hazards such as flooding, expansive soils, wildfire, hazardous materials, and transportation.

**Chapter 5** presents an overview of each public school district, demographics and vulnerability to hazards, and includes maps of every school within the districts with site-specific hazards such as flooding, expansive soils, wildfire, hazardous materials, and transportation.

**Chapter 6** sets disaster-specific goals and objectives and organizes proposed mitigation strategies under six mitigation categories: public information and education, preventive activities, structural projects, property protection, emergency services, and natural resource protection.

**Chapter 7** outlines an action plan for the implementation of high priority mitigation projects, including a description of the project, the responsible party, anticipated cost, funding sources, and timelines for implementation.

**Chapter 8** provides a discussion of the plan maintenance process and documentation of the adoption. Plan maintenance includes monitoring, evaluating, and updating the plan with involvement of the public.

**Appendix A** provides a glossary of terms commonly used in disaster management and hazard mitigation.

**Appendix B** provides a more detailed description of potential Mitigation Measures outlined in Chapter 7, broken down by category.

**Appendix C** provides the agendas from the Hazard Mitigation Advisory Committee meetings.

**Appendix D Previous Mitigation Measures** provides a report on the current status of all Mitigation Measures included in the 2008 plan – whether completed, in process, continuing in the update, or incomplete.

## Mitigation Action Plan

The mitigation Action Plan includes strategies for implementing the mitigation measures, including information on the responsible agency, time frame, cost estimate, funding sources, and a statement of the measurable results. The Action Plan is included in this document as Chapter 8.

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